

On January 30, 2018, the Multi-Council Working Group (MCWG) of the NIH BRAIN Initiative held its ninth meeting. The MCWG provides insights related to funding strategies, initiative planning, and progress in achieving the goals laid out in BRAIN's roadmap, [BRAIN 2025](#).

Drs. Walter Koroshetz and Joshua Gordon provided an overview of the current state of BRAIN at NIH. They discussed the budget, administrative accomplishments and room for improvement, as well as scientific advancements and future perspectives.

The total lifetime budget for BRAIN is projected to be \$4.2 billion. The emphasis now is to ensure that plans are in place to support aggressive and high impact/high reward research.

There are many exciting scientific prospects in Fiscal Year 2018. Funding opportunities are open that continue to focus on tool development, but also theories, models and methods for analysis of complex brain data. Additionally, new attention is on technology integration and dissemination, through research grants, small business grants, and [training initiatives](#). NIH is excited to take some of the technologies that were developed during the early days of the Initiative and help them reach more scientists.

One of NIH's major efforts for BRAIN is to generate a complete inventory, or cell census, of neuronal cell types and their connections in the brain. [The BRAIN Initiative Cell Census Network \(BICCN\)](#), launched October 2017, is the next phase; eleven grants (\$50 million over 5 years) will support a network of integrated centers, collaborating laboratories, and data resources. The BICCN will create a comprehensive 3-D common-reference mouse (and eventually monkey and human) brain cell atlas that integrates molecular, anatomical, and physiological properties of brain cell types.

BRAIN is assembling a team to help plan the second half of the Initiative's lifespan. There will be a new BRAIN Initiative working group within the advisory committee to the NIH Director, with the following aims: (1) identify new topics and questions from high-priority research areas that might be interrogated given the emerging tools and technologies, (2) identify valuable areas of new and continued technology development, and (3) consider the unique contributions that BRAIN can make to neuroscience.

The existing opioid crisis presents an area of opportunity for BRAIN Initiative discoveries to make a difference in the near future. This is a crisis the likes of which the country has never seen, with 64,000 overdose deaths in 2016. NIH BRAIN aspires to have the tools to understand how brain circuits work, and addiction is a classic brain circuit disorder. Can we manipulate circuits to get people out of addiction? To explore this idea, NIH welcomes grant applications that propose to use tools for [understanding pain circuits/nociception](#).

The meeting also included the announcement that NIH has broadened its [requirements for reporting human studies research](#) (effective January 25, 2018). The most important thing for investigators to do, while applying for funding, is to talk with their program officers early, to see if a human subjects study needs to be labeled as a clinical trial.

Additionally, the fourth annual [BRAIN Initiative Investigators Meeting](#) is approaching (April 9-11). It will be a fantastic meeting of BRAIN investigators from the contributing federal agencies (NIH, NSF, DARPA, IARPA, and FDA), and more.

Professor Hank Greely, J.D. delivered an update regarding the MCWG's Neuroethics Division. He presented a recently-produced document, *Principles for Neuroethics*, which is in draft form and subject to change. It contains eight guiding principles (not rules or regulations, but issues for program officers, institutional review boards, researchers, and others to consider). The document makes two initial points: First, neuroscience research is an ethical imperative, and it is unethical to NOT pursue research that tries to prevent/alleviate suffering. Second, neuroethics is crucial to neuroscience research, and we need to provide help to researchers to ensure the research is performed in an ethical way and maintains public support/confidence.

The meeting proceeded with a two-hour closed session of the MCWG members and federal staff, before resuming in open session.

Dr. Michelle Jones-London presented a new funding opportunity concept, titled *BRAIN-Initiative: Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00)*. The concept aligns with BRAIN 2025 education and training goals, which emphasize attracting new investigators to neuroscience from quantitative and physical disciplines, and vice versa, and promoting collaboration between these disciplines. Furthermore, BRAIN prioritizes having a diversity of approaches, tools, and people. This K99/R00 would support the transition of talented, underrepresented post-doctoral scholars to tenure-track or equivalent positions. Eligible applicants would include women, underrepresented racial and ethnic groups, and persons with disability. Both career development (K99) and independent research (R00) phases must be in BRAIN research areas. The MCWG voted yes on turning the concept into a Request for Applications.